

In the Claims:

1-19. (Cancelled).

20. (New) A method for a trenchless underground laying of pipelines, comprising:
from a starting shaft, driving through a ground a shield tunnel boring machine and pipes
following the machine;
producing a borehole using the machine, a diameter of the borehole being slightly larger
than an outer diameter of the pipes;
filling an annular space existing between the borehole wall and the pipes with a
supporting and lubricating agent;
during an advance of the pipes, at least in a region of one of (i) the machine, (ii) a first
pipe of the pipes following the machine and (iii) a first lubricating station, examining a condition
of the ground, the examining step being performed in one of (i) a continuous manner and (ii) a
periodic manner; and
performing at least one of the following step based on a result of the examining step:
(i) at least one (a) sealing and (b) solidifying the ground in the examined region
using at least one of a sealing medium and a solidifying medium; and
(ii) adjusting a composition of the supporting and lubricating agent.

21. (New) The method according to claim 20, further comprising:
testing one of (i) a sealing of a borehole wall and (ii) a permeability of the borehole wall
using a test medium.

22. (New) The method according to claim 21, further comprising:
determining one (i) a loss in quantity of the test medium and (ii) a pressure loss of the test
medium.

23. (New) The method according to claim 20, wherein the supporting and lubricating agent
with a predetermined composition is utilized as a test medium.

24. (New) The method according to claim 20, wherein the supporting and lubricating agent is one of (i) water, (ii) a bentonite suspension and (iii) a bentonite-polymer suspension.

25. (New) The method according to claim 20, further comprising:
injecting under a pressure into the ground one of the sealing medium and the solidifying medium in order to at least one of seal and solidify the ground so that the ground changes into one of a gel-like state and a solid state.

26. (New) The method according to claim 25, wherein at least one of the sealing medium and the solidifying medium is at least two component medium, the method further comprising:
injecting the at least two component medium in at least two successive phases.

27. (New) The method according to claim 20, wherein the examining and performing steps are repeated at a spacing of a few pipe lengths.

28. (New) A device for implementing the method according to claim 20, comprising:
a first test and injection device having a supporting and lubricating agent and at least one of a sealing medium and a solidifying medium, the first test and injection device being situated in one of (i) a region of a shield tunnel boring machine and (ii) a region of one of front pipes.

29. (New) The device according to claim 28, further comprising:
supply lines supplying to the first test and injection device at least one of (i) the supporting and lubricating agent and (ii) at least one of the sealing medium and the solidifying medium.

30. (New) The device according to claim 29, further comprising:
a controllable mixing unit adjusting of rheological properties of at least one of the sealing medium and the solidifying medium, the controllable mixing unit being situated in a first line of the lines which supplies only at least one of the sealing medium and the solidifying medium.

31. (New) The device according to claim 29, wherein the test and injection device has openings which discharge into an annular space, the test and injection device being connected to at least one of the supply lines.

32. (New) The device according to claim 28, further comprising:
at least two blocking elements delimiting an annular space in a longitudinal direction of the pipes, the at least two blocking elements being situated between a borehole wall and the pipe.

33. (New) The device according to claim 32, wherein the at least two blocking elements expand one in a pneumatic manner and a hydraulically manner in a radial direction.

34. (New) The device according to claim 32, wherein a mutual spacing of the at least two blocking elements changes in a longitudinal direction.

35. (New) The device according to claim 34, wherein the at least two blocking elements includes first and second blocking elements, wherein, in a region of one of (i) the shield tunnel boring machine, (ii) one of front pipes and (iii) a first lubricating station, the first blocking element is situated moveably with the second blocking element, and wherein the second blocking element is situated in a stationary manner in a region of the starting shaft.

36. (New) The device according to claim 35, wherein the at least two blocking elements includes a third blocking element which is situated approximately one pipe length behind the first blocking element.

37. (New) The device according to claim 31, wherein the openings are disposed distributed uniformly in a circumferential direction, and wherein, in order to achieve uniform pressure conditions in the annular space, the openings are individually controlled and activated.

38. (New) The device according to claims 28, further comprising:
a second test and injection device being situated in the pipes several pipe lengths behind the first test and injection device.